

Amendments to the Specification:

In paragraph [0024]:

Fig.5 shows a block diagram of an optical disc system 500 according to the second embodiment of the present invention. The optical disc system 500 according to the second embodiment includes the same basic components connected in the same fashion as the first embodiment shown in Fig.1. The reflected light L is received by the OEIC 106 and converted to the DPD signal by the DPD signal generator 108 in the same way as the first embodiment shown in Fig.1. However, in the second embodiment, the tilt search block 110 further comprises an amplifier 502, a multiplexer 504, an amplitude detector 505 (or bypass), an analog to digital converter (ADC) 506, and a central processing unit (CPU) 508. Because the DPD signal is not designed to indicate the tilt angle, it may be required to amplify the signal in order to more easily measure differences between the amplitude of the DPD signal of different tilt angles. The amplifier 502 is provided for this function, and can amplify the DPD signal such that the amplified DPD signal corresponds to a maximum allowable input signal level for the tilt search block 110. The amplitude detector 505 can be used to assist in detecting the amplitude of the amplified DPD signal or if this function is not built-in, block 505 can be bypassed and software executed by the CPU 508 can be used to compute the amplitude. To allow the CPU 508 to search for the optimal tilt angle, the DPD signal needs to be converted to a digital format usable by the CPU. Because most optical disc systems already include an ADC 506, the multiplexer 504 is included to allow the reuse of the already existing ADC 506 to digitize the DPD signal. In some optical disc systems, this multiplexer may itself already exist for allowing the reuse of the ADC converter. Fig.5 shows an optical disc system having multiple signals (Sig1, ..., SigN) already being multiplexed by the multiplexer 504 and the DPD signal has been added as one of the signals multiplexed by the multiplexer 504. During tilt angle calibration, the multiplexer 504 is controlled by the CPU 508 to pass the DPD signal to the ADC 506. A digital DPD signal output by the ADC 506 is received by the

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CPU 508. Using a search algorithm, such as the search algorithm shown in Fig.4, the CPU 508 scans a plurality of tilt angles to determine the optimal tilt angle having the lowest amplitude DPD signal. When calibration is complete and the optimal tilt angle has been set, the CPU controls the multiplexer 504 to pass the normal-operation signal(s) to
5 the ADC 506.